

Mt. Hope High School Robotics

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English 101 MW 8am

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The History of the Mt. Hope Robotics Team

The Mt. Hope Robotics club of Bristol, Rhode Island was started in 2006 by Mr. Ryan Garrity because the school was offered a free kit to compete in the first VEX robot competition. As the Industrial Technology teacher and a member of the schools STEM program Mr. Garrity has coached the team(s) from the very beginning. Originally named the 'Underdogs' the singular team has developed and morphed over the years into multiple teams, where in some years there is a completely all girls team. The multiple teams are known for the hard work and their presence at local, national and international competitions. As I spoke to the members present during my visit, it became obvious that each member no matter past or present had one thing in common- a thrive to learn about engineering and to apply that knowledge to their future.

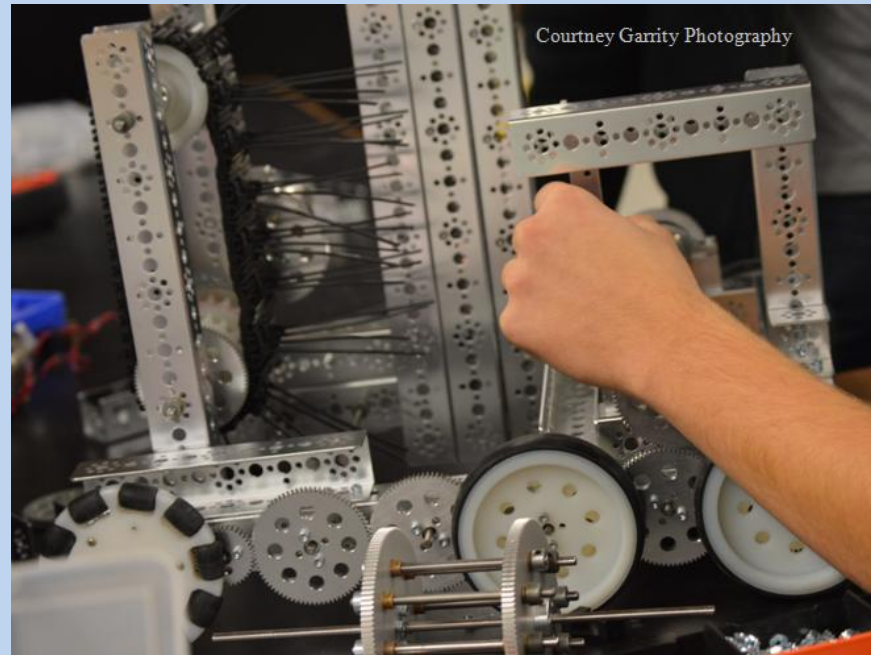


A Day in the Life of the Mt. Hope Robotics Team

To get an idea of what the average club meeting is like I spoke both to Coach Garrity and a high school senior who would like to be referred to by his initials RC.

According to Coach Garrity the average meeting is “clear and concise with the objectives of the day and the week outlined before the students are released to work amongst their own groups.” If the students have any questions, students have often been seen asking each other before asking their Coach, who moves amongst the teams offering his advice and a critical, kind eye.

RC’s take of the average day is that students come in and talk to their team, outlining a plan for the day. Because some of the members also take a robotics class and use that time to work on their project the assignments always differ. “When I come in it’s to talk to the team and find out where I’m needed. If someone needs help we work as a team. I do the notebooks, take pictures...I keep as up to date as possible.” It is a matter of working together to get the robots into working progress.



The Design and Assembly Process

When I asked about the design and assembly process, I was directed to talk to the same senior that I spoke with about daily life. RC told me about how their designs are constantly changing to fit the current competitions guidelines.

“We’re currently using our world champion [ro]bot from two years ago for this competition, changing it around so that flaws like its size restraints are no longer a violation.”

Members of the team are constantly drafting something new, or redesigning the robots they have competed with in previous years.



Programming

For the majority, the programming of the robots is done by a member who once again prefer to be called by her initials, AC. While sitting in front of a computer she works to develop a code between leading her team and helping get the clubs newest members acclimated.

“It is basically developing the code like you would when making a website,” says AC. “Through my code I am telling the robot what to do and when to do it. I have been a member of the club for six years and out of those six, I’ve been writing the codes for the past five.”

The codes that AC comes up with are so that the robot can perform relatively simple tasks- such as moving objects from one place to another and then completing a series of twists and turns.



Here AC pre-writes her code before she programs her teams latest robot.

Trial And Error

One of the students I interviewed had a pretty good quote about the teams method of trial and error.

“We test and if it fails, then it fails the first time. From their we implement the failures of the first shot into the second attempt and so on, drafting continually until we have adjusted the wrong.”

Though they may have to attempt something four or five times, the teams refuse to let this get them down, joking around and scattering their designs across their work tops.



Competitions and Accomplishments

Since its induction in 2006, The Mt. Hope Robotics team has competed multiple times locally, regionally and then nationally. Within the last few years they have also gone international, competing amongst the best of the best.

Following these competitions when local news stations were attracted to the team, some would have thought that a bunch of high school students would relish the lime light but that was not the case. A few of them who attended these competitions admitted that the fame was surprising but it did not affect how they were treated at school by their teachers and peers.



Looking Towards the Future

One question that I asked every student that I sat down with was “What do you plan to do with the knowledge and experience you have gained from your time with the robotics team?” Their answers varied with their current goals but they all had answers along the lines of putting the knowledge to good use in a career that has something to do with engineering. Below are some of the things they had to say.

“I want to be an engineer, even though I’m not sure what kind, and this is a start. It gives me some techniques to build on.” –Anon.

“I hope to look into engineering.” –SG

“Well I found out I didn’t like engineering...so I said what else can I do and it was like ‘oh, programming.’ So now I’m in school for computer programming which is really good.” –JM 2014 graduate

“Since I’ve joined the club I have learned teamwork and how to read body language, as well as leadership. This program has helped me realized that though I originally wanted to work in engineering, I now want to study elementary education because I liked what I learned while volunteering to teach robots to students.” –AC

“I don’t really know what I want...I just want to put everything towards working with my hands through trial and error.”-RC



“I know that robotics teaches you tech, responsibility, leadership...I can go on and on. But I want to use the basic skills I’ve learned for mechanics.” –JA

“[the idea is] to allow teams to grow and for robots to become a k-12 initiative. Hopefully within the next few years the high school club will have helped the local elementary schools learn the program.”- Coach Garrity

This team is like a family, joking and joshing with an undercurrent of mutual respect as they work on their current projects. The atmosphere is relaxed, people humming along to the local country station that plays from someone's radio as they work between making adjustments, filling out their daily logs or taking pictures to document their progress. It is truly remarkable to see the seasoned veterans showing the underclassmen the ins and the outs, sharing their knowledge and helping to inspire future generations.